**S4 Table. Calculation of excess costs associated with agitation in people with dementia in care homes**

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| **CMAI score** | **Percent observations**  **N=1,424****(A)** | **Adjusted mean annual costs per resident****(B)** |
| 29 |  14.68 |  £ 2,321.69  |
| 30 |  2.67  |  £ 2,334.33  |
| 31 |  4.07  |  £ 2,347.03  |
| 32 |  2.74  |  £ 2,359.81  |
| 33 |  4.35  |  £ 2,372.65  |
| 34 |  3.93  |  £ 2,385.57  |
| 35 |  3.23  |  £ 2,398.55  |
| 36 |  3.30  |  £ 2,411.61  |
| 37 |  3.37  |  £ 2,424.73  |
| 38 |  2.25  |  £ 2,437.93  |
| 39 |  2.46  |  £ 2,451.20  |
| 40 |  2.18  |  £ 2,464.54  |
| 41 |  2.46  |  £ 2,477.96  |
| 42 |  2.18  |  £ 2,491.45  |
| 43 |  2.25  |  £ 2,505.01  |
| 44 |  2.32  |  £ 2,518.64  |
| 45 |  1.62  |  £ 2,532.35  |
| 46 |  1.90  |  £ 2,546.13  |
| 47 |  1.62  |  £ 2,559.99  |
| 48 |  1.69  |  £ 2,573.93  |
| 49 |  2.32  |  £ 2,587.94  |
| 50 |  1.76  |  £ 2,602.02  |
| 51 |  1.83  |  £ 2,616.19  |
| 52 |  1.40  |  £ 2,630.43  |
| 53 |  1.54  |  £ 2,644.74  |
| 54 |  0.49  |  £ 2,659.14  |
| 55 |  1.05  |  £ 2,673.61  |
| 56 |  1.05  |  £ 2,688.16  |
| 57 |  0.98  |  £ 2,702.80  |
| 58 |  0.91  |  £ 2,717.51  |
| 59 |  1.05  |  £ 2,732.30  |
| 60 |  0.70  |  £ 2,747.17  |
| 61 |  0.77  |  £ 2,762.12  |
| 62 |  0.84  |  £ 2,777.16  |
| 63 |  1.12  |  £ 2,792.27  |
| 64 |  1.19  |  £ 2,807.47  |
| 65 |  1.54  |  £ 2,822.75  |
| 66 |  0.63  |  £ 2,838.12  |
| 67 |  0.84  |  £ 2,853.57  |
| 68 |  0.42  |  £ 2,869.10  |
| 69 |  0.84  |  £ 2,884.71  |
| 70 |  0.42  |  £ 2,900.42  |
| 71 |  0.63  |  £ 2,916.20  |
| 72 |  0.28  |  £ 2,932.08  |
| 73 |  0.56  |  £ 2,948.03  |
| 74 |  0.77  |  £ 2,964.08  |
| 75 |  0.49  |  £ 2,980.21  |
| 76 |  0.63  |  £ 2,996.44  |
| 77 |  0.63  |  £ 3,012.74  |
| 78 |  0.28  |  £ 3,029.14  |
| 79 |  0.21  |  £ 3,045.63  |
| 80 |  0.49  |  £ 3,062.21  |
| 81 |  0.70  |  £ 3,078.88  |
| 82 |  0.42  |  £ 3,095.63  |
| 83 |  0.42  |  £ 3,112.48  |
| 84 |  0.14  |  £ 3,129.43  |
| 85 |  0.28  |  £ 3,146.46  |
| 86 |  0.49  |  £ 3,163.58  |
| 87 |  0.28  |  £ 3,180.80  |
| 88 |  0.21  |  £ 3,198.12  |
| 89 |  0.35  |  £ 3,215.52  |
| 92 |  0.14  |  £ 3,268.32  |
| 93 |  0.07  |  £ 3,286.11  |
| 94 |  0.07  |  £ 3,303.99  |
| 95 |  0.21  |  £ 3,321.98  |
| 97 |  0.07  |  £ 3,358.24  |
| 98 |  0.14  |  £ 3,376.52  |
| 100 |  0.14  |  £ 3,413.37  |
| 101 |  0.21  |  £ 3,431.95  |
| 103 |  0.14  |  £ 3,469.41  |
| 104 |  0.07  |  £ 3,488.30  |
| 105 |  0.07  |  £ 3,507.29  |
| 106 |  0.07  |  £ 3,526.38  |
| 107 |  0.14  |  £ 3,545.57  |
| 108 |  0.07  |  £ 3,564.87  |
| 110 |  0.07  |  £ 3,603.78  |
| 111 |  0.14  |  £ 3,623.40  |
| 113 |  0.07  |  £ 3,662.95  |
| 115 |  0.07  |  £ 3,702.93  |
| 118 |  0.14  |  £ 3,763.73  |
| 119 |  0.07  |  £ 3,784.21  |
| 120 |  0.14  |  £ 3,804.81  |
| 121 |  0.07  |  £ 3,825.52  |
| 125 |  0.07  |  £ 3,909.49  |
| 127 |  0.07  |  £ 3,952.17  |
| 134 |  0.14  |  £ 4,105.23  |
| 137 |  0.07  |  £ 4,172.63  |

CMAI=Cohen-Mansfield Agitation Inventory scale; N=number

Annual expected cost per person with dementia based on percent with each CMAI score = (sum of (column A [CMAI score from 29 to 137]\*column B [CMAI score from 29 to 137])) =£2,564.39

Annual cost per resident with dementia and no clinically significant agitation = (sum of (column A [CMAI score from 29 to 45]\*column B [CMAI score from 29 to 45])) =£1,439.04

Mean annual excess costs associated with agitation=£2,564.39-£1,439.04=£1,125.35